

It is claimed:

1. A method of modifying a SPICE netlist of a circuit design using a simulation template to perform a pre-determined analysis involving circuit parameter perturbations, comprising:

5 adding a perturbing routine to said netlist for altering circuit parameter values of said circuit design in a pre-determined manner;

adding a simulation routine to said netlist for performing simulations of said circuit design for respective altered circuit parameter values to arrive at respective selected vector measurements; and

10 adding an analysis routine to said netlist for manipulating at least one of said vector measurements in accordance with said pre-determined analysis.

2. The method of claim 1, further including the step of adding tolerances in the netlist for
15 said circuit parameters.

3. The method of claim 1, further including the step of removing parameter and vector save statements in said netlist.

4. The method of claim 1, further including the step of adding a routine to said netlist to perform a reference simulation of said netlist to arrive at a nominal value for said selected vector measurement.

5. The method of claim 4, wherein said analysis routine also manipulates said nominal selected vector measurement in accordance with said pre-determined analysis.

6. The method of claim 5, wherein said pre-determined analysis includes a sensitivity analysis involving determining a difference between said respective selected vector measurements and said nominal selected vector measurement.

7. The method of claim 6, wherein said pre-determined analysis further includes a root summed square analysis involving a sum of the square of said difference between said respective selected vector measurements and said nominal selected vector measurement.

8. The method of claim 6, wherein said pre-determined analysis further includes a extreme value analysis involving a determination of a maximum of said difference between said respective selected vector measurements and said nominal selected vector measurement when said circuit parameter values at their extreme tolerance values.

9. The method of claim 6, wherein said pre-determined analysis further includes a worst case by sensitivity analysis involving a maximum of an absolute value of said difference between said respective selected vector measurements and said nominal selected vector measurement.

10. A computer readable medium having stored therein a simulation template for modifying a SPICE netlist of a circuit design to perform a pre-determined analysis involving parameter perturbations, comprising:

a routine to add to said netlist for altering circuit parameter values of said circuit design in a pre-determined manner;

a routine to add to said netlist for performing simulations of said circuit design for respective altered circuit parameter values to arrive at respective selected vector measurements; and

a routine to add to said netlist for manipulating at least one of said vector measurements in accordance with said pre-determined analysis.

11. The computer readable medium of claim 10, wherein said simulation template further includes a command to add tolerances in the netlist for said circuit parameters.

12. The computer readable medium of claim 10, wherein said simulation template further includes a command to remove parameter and vector save statements in said netlist.

13. The computer readable medium of claim 10, wherein said simulation template further includes a routine to add to said netlist for performing a reference simulation of said netlist to arrive at a nominal value for said selected vector measurement.

14. The computer readable medium of claim 13, wherein said analysis routine also manipulates said nominal selected vector measurement in accordance with said pre-determined analysis.

15. The computer readable medium of claim 14, wherein said pre-determined analysis includes a sensitivity analysis involving determining a difference between said respective selected vector measurements and said nominal selected vector measurement.

16. The computer readable medium claim 15, wherein said pre-determined analysis further includes a root summed square analysis involving a sum of the square of said difference between said respective selected vector measurements and said nominal selected vector measurement.

17. The computer readable medium of claim 15, wherein said pre-determined analysis further includes a extreme value analysis involving a determination of a maximum of said difference between said respective selected vector measurements and said nominal selected vector measurement when said circuit parameter values at their extreme tolerance values.

18. The computer readable medium of claim 15, wherein said pre-determined analysis further includes a worst case by sensitivity analysis involving a maximum of an absolute value of said difference between said respective selected vector measurements and said nominal selected vector measurement.